

1    § 3162.3-2 Subsequent well operations; Excluding well stimulation.

- 2    (a) A proposal for further well operations must be submitted by the operator on Form 3160-5  
3       (Sundry Notices and Reports on Wells) for approval by the authorized officer prior to  
4       commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing,  
5       recomplete in a different interval, perform water shut-off, commingle production between  
6       intervals, and/or convert to injection. If there is additional surface disturbance, the proposal  
7       must include a surface use plan of operations. A subsequent report on these operations also  
8       must be filed on Form 3160-5 (Sundry Notices and Reports on Wells). The authorized  
9       officer may prescribe that each proposal contain all or a portion of the information set forth  
10      in § 3162.3-1 of this title.
- 11    (b) Unless additional surface disturbance is involved and if the operations conform to the  
12      standard of prudent operating practice, prior approval is not required for recompletion in the  
13      same interval; however, a subsequent report on these operations must be filed on Form  
14      3160-5 (Sundry Notices and Reports on Wells).
- 15    (c) No prior approval or a subsequent report is required for well cleanout work, routine well  
16      maintenance, or bottom hole pressure surveys.
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18    § 3162.3-3 Subsequent well operations; Well stimulation.

- 19    (a) A proposal for well stimulation operations must be submitted by the operator on Form  
20      3160-5 (Sundry Notices and Reports on Wells) for approval by the authorized officer at  
21      least 30 days before the commencement of operations is desired. If there is additional  
22      surface disturbance, the proposal must include a surface use plan of operations. The  
23      authorized officer may prescribe that each proposal contain all or a portion of the  
24      information set forth in § 3162.3-1 of this title. The information required in the Notice of  
25      Intent Sundry includes the following:
- 26      (1) The geological names, a geological description, and the proposed measured depth of  
27          the top and the bottom of the formation into which well stimulation fluids are to be  
28          injected.
- 29      (2) The proposed measured depths (both top and bottom) of all occurrences of usable  
30          water and provide Cement Bond Logs (or another log acceptable to the authorized  
31          officer) proving that the occurrences of usable water have been isolated to protect  
32          them from contamination.
- 33      (3) The proposed measured depth of perforations or the open-hole interval, the source and  
34          location(s) of the water used in the stimulation fluid or trade name of base fluid (if  
35          other than water), type of proppants, and estimated pump pressures. Information  
36          concerning water supply, such as rivers, creeks, springs, lakes, ponds, and wells, may  
37          be shown by quarter-quarter section on a map or plat, or may be described in writing.  
38          The sundry notice must identify the source, access route, and transportation method  
39          for all water anticipated for use in stimulating the well.
- 40      (4) A report (table) that discloses all additives of the proposed stimulation fluid by  
41          additive trade name and purpose (such as, but not limited to, acid, biocide, breaker,  
42          brine, corrosion inhibitor, crosslinker, demulsifier, friction reducer, gel, iron control,  
43          oxygen scavenger, pH adjusting agent, proppant, scale inhibitor, surfactant);

- (5) A report (table) that discloses the complete chemical makeup of all materials used in the proposed stimulation fluid without regard to original source additive (refer to subsection (a)(4)). For each chemical, the operator must provide the Chemical Abstracts Service number as well as the percentage by mass. The percent mass value is the mass value for each component (Mc) divided by the value of the entire fluid mass (Mt) times 100.  $(Mc/Mt)*100 = \text{percent mass value}$ . The percent mass values should be for the entire stimulation operation; not for the individual stages.
- (6) The operator may instead provide a copy of the service company contractor's proposed well stimulation program design as long as the details required in subsection (a)(4) and (a)(5) are included.
- (7) A certification signed by the operator that the proposed treatment fluid complies with all applicable permitting and notice requirements as well as all applicable Federal, state, and local laws, rules, and regulations.
- (8) A detailed description of the proposed well stimulation design, including:
- (i) The estimated total volume of fluid to be used;
  - (ii) The anticipated surface treating pressure range;
  - (iii) The maximum injection treating pressure; and
  - (iv) The estimated or calculated fracture length and fracture height.
- (9) The following information concerning the handling of recovered fluids:
- (i) The estimated volume of fluid to be recovered during flow back, swabbing, and/or recovery from production facility vessels;
  - (ii) The proposed methods of handling the recovered fluids, including but not limited to pit requirements, chemical composition of the fluid, pipeline requirements, holding pond use, re-use for other stimulation activities, or injection; and
  - (iii) The proposed disposal method of the recovered fluids including but not limited to injection, hauling by truck, or transporting by pipeline.
- (10) The authorized officer may request additional information under this subsection prior to the approval of the Sundry Notice.
- (b) Prior to the well stimulation, the operator must perform a successful mechanical integrity test (MIT) of the casing.
- (1) If well stimulation through the casing is proposed, the casing must be tested to not less than the maximum anticipated treating pressure.
  - (2) If well stimulation through a fracturing string is proposed, the fracturing string must be 'stung' into a liner or run on a packer-set not less than 100 feet below the cement top of the production or intermediate casing. The fracturing string must be tested to not less than the maximum anticipated treating pressure minus the annulus pressure applied between the fracturing string and the production or intermediate casing.
  - (3) The MIT will be considered successful if the pressure applied holds for 30 minutes with no more than a 10 percent pressure loss.
- (c) During the well stimulation operation, the operator must monitor and record the annulus pressure at the bradenhead. If an intermediate casing has been set on the well that is being stimulated, the pressure in the annulus between the intermediate casing and the production casing must also be monitored and recorded. A continuous record of the annulus pressure during the well stimulation must be submitted on a Subsequent Report Sundry Notice (Form 3160-5, Sundry Notices and Reports on Wells).

- (d) If during the stimulation, the annulus pressure increases by more than 500 pounds per square inch gauge (psi) as compared to the pressure immediately preceding the stimulation, the operator must orally notify the authorized officer as soon as practicable but no later than 24 hours following the incident. Within 15 days after the occurrence, the operator must include a report containing all details pertaining to the incident, including corrective actions taken, as part of the Subsequent Report Sundry Notice (Form 3160-5, Sundry Notices and Reports on Wells).
- (e) Storage of all recovered fluids must be in either tanks or lined pits. The authorized officer may require additional measures to ensure protection of wildlife or other resources.
- (f) The following information must be provided in the required Subsequent Report Sundry Notice (Form 3160-5, Sundry Notices and Reports on Wells):
- (1) The actual measured depth of perforations or the open-hole interval, the source and location(s) of the water used in the stimulation fluid or trade name of base fluid (if other than water), type of proppants, and estimated pump pressures. Information concerning water supply, such as rivers, creeks, springs, lakes, ponds, and wells, may be shown by quarter-quarter section on a map or plat, or may be described in writing. The sundry notice must identify the source, access route, and transportation method for all water used in stimulating the well;
  - (2) The actual total volume of the fluid used;
  - (3) The actual surface pressure and rate at the end of each fluid stage, and the actual flush volume, rate, and final pump pressure;
  - (4) A report (table) that discloses all additives of the actual stimulation fluid, by additive trade name and purpose (such as, but not limited to, acid, biocide, breaker, brine, corrosion inhibitor, crosslinker, demulsifier, friction reducer, gel, iron control, oxygen scavenger, pH adjusting agent, proppant, scale inhibitor, surfactant);
  - (5) A report (table) that discloses the complete chemical makeup of all materials used in the actual stimulation fluid without regard to original source additive (refer to subsection (f)(3)). For each chemical, the operator must provide the Chemical Abstracts Service number as well as the percentage by mass. The percent mass value is the mass value for each component ( $M_c$ ) divided by the value of the entire fluid mass ( $M_t$ ) times 100.  $(M_c/M_t) \times 100 = \text{percent mass value}$ . The percent mass values should be for the entire stimulation operation; not for the individual stages.
  - (6) The actual, estimated, or calculated fracture length and fracture height.
  - (7) The Subsequent Report Sundry Notice (Form 3160-5, Sundry Notices and Reports on Wells) may be completed in whole or in part, as applicable, by attaching the service contractor's job log or other report, so long as the information required in subsection (f)(1) – (6) is complete and readily apparent.
  - (8) A certification signed by the operator that treatment fluid used complies with all applicable permitting and notice requirements as well as all applicable Federal, state, and local laws, rules, and regulations.
  - (9) A certification signed by the operator that wellbore integrity was maintained throughout the operation, as required by subsections (b), (c), and (d) of this section.
  - (10) The following information concerning the handling of recovered fluids:
    - (i) The volume of fluid recovered during flow back, swabbing, and/or recovery from production facility vessels;

- 1 (ii) The methods of handling the recovered fluids including but not limited to  
2 pipeline requirements, holding pond use, re-use for other stimulation activities, or  
3 injection; and  
4 (iii) The disposal method of the recovered fluids including but not limited to  
5 injection, hauling by truck, or transporting by pipeline. The disposal of fluids  
6 produced during the flow back from the well stimulation process must follow the  
7 requirements set out in Onshore Order #7, Section III, B.
- 8 (g) At the time of submission of any information under this section, operators must:  
9 (1) Specifically identify information claimed to be exempted from public disclosure by a  
10 Federal statute or regulation;  
11 (2) Identify the law or regulation that protects the information, and explain in detail why  
12 the specific information is exempted from public disclosure; and  
13 (3) Inform the BLM whether the information is available to the public through other  
14 means, such as disclosures required by state law.
- 15 (h) Any information not specifically substantiated in subpart (g)(1-3) of this section, will  
16 become a matter of public record.  
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